

THE SENTINEL



OFFICIAL SAFETY NEWSLETTER OF CIVIL AIR PATROL

CAPSAFE

I have been reviewing the safety hints and suggestions sent to CAPSAFE and I must admit I am a bit disappointed.

When the program was introduced, it replaced the previous plan which included among other things, the safety pledge. Although many units still use the safety pledge, it is no longer required. The pledge was a great tool to focus our attention on safety after we had a high number of mishaps but we have to be innovative and changing to keep the members focused on what they are doing and how to do it safe. We asked for your

ideas and best practices in the safety areas. We received good responses and have passed on these ideas.

Lately there have been few really good suggestions. Surely someone out there has a good safety plan or idea on how to do our missions safely. Let us know how you found a plan or routine to make your job safe. If not, it may be time to change and come up with another program. Got any ideas on a new one? Let [CAPSAFE](#) know.

Col John Tilton, CAP/SE

Fatigue

If you are planning a long trip, AAA offers the following tips for avoiding fatigue:

1. Prepare for your trip by getting a good night's sleep the night before. Plan to drive during the time that you are normally awake and stay overnight rather than traveling straight through.

2. Avoid driving during the body's "down time". According to AAA, this is generally in the mid-afternoon and between midnight and 6:00 a.m.

3. If you have passengers, talk to

them. It will help to keep you alert, and they will also be able to tell if you are showing signs of getting sleepy.

4. Schedule a break every 2 hours or every 100 miles. Take a nap, stretch, take a walk and get some exercise before resuming your trip. Stop sooner if you show any danger signs of getting sleepy.

"Tricks" that do not work: Opening the window, turning on the air conditioning, or playing loud music are not effective in keeping drivers alert for any extended period of time.

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Earnest Gann wrote a marvelous book entitled "Fate is the Hunter". It is a story of his personal career and experience dealing with the challenges of aviation in the early airline days and the tragedies his colleagues met while doing their job as airline pilots. Although it is not a safety book or written just for pilots, as a pilot you can appreciate why training and recurrent training becomes so important in dealing with the unexpected challenges in life or as Earnest Gann calls FATE. We need to be prepared when fate is knocking on the door and your training as a pilot will help you to keep that door closed. This is also true for anything we do in our lives to be safe and ready to handle all emergency situations. The following story is written by Col Bob Castle the Commander of the Oklahoma Wing. It is his true to life story how fate came looking for him and how his training and experience helped to keep fate from achieving its challenge. Note what he does as a result of his training and his use of Crew Resource Management with the controller and his understanding of Situational Awareness.

L. Mattiello, Editor

I was asked by the owner of a Piper PA-28-161 Warrior to pick up three passengers in Texas and return them to Oklahoma City for the weekend. I departed Wiley Post Airport about 4:45pm on Friday July 12, 2002, bound for McKinney, TX, just northeast of Dallas. After landing, I contacted the passengers waiting for me at Rockwall and told them I'd had to divert to McKinney.

By the time my passengers had arrived at McKinney, I added 10 gallons of fuel to the tanks, received updated enroute weather and filed a VFR flight plan for the return leg to Wiley Post with Fort Worth AFSS.

Since the airplane was hangared while waiting for a storm to pass, I did a thorough preflight inspection and took care to give my 3 passengers a safety briefing. In order to keep the weight and balance within limits, I seated my 38-year-old female passenger in the right rear seat, with her 5-year-old son in the left rear seat. I showed the 15-year-old female front right-seat passenger how to open the door latches. At the time, she asked why I was showing her how to open the door. My flip response was "well, just in case."

We departed at 8:42pm, estimating an hour and forty-five minutes time enroute. The air was clear and smooth as we climbed to our enroute altitude of 4,500 MSL. I asked for and was granted VFR traffic advisories from Regional Approach Control and then from Ft. Worth Center. The right seat passenger was listening to a portable CD player on headphones, while the other two passengers watched a portable DVD player in the back.

The flight was uneventful until shortly after we crossed the Red River into Oklahoma. The instrument panel lighting suddenly dimmed momentarily and then returned to normal brightness. I had flown this particular airplane at night on two previous occasions, but had never had something like that happen in any airplane I'd flown before. There were no other symptoms, and a check of the panel showed normal indications from all instruments, including the ammeter. We cruised on for several more minutes and then the same thing occurred. This time though, I thought I heard some sort of "popping" noise from behind me. I turned to the adult rear seat passenger and asked if her son was doing anything that might cause the instrument lights to dim. She said she didn't think so and said

she'd turn the DVD player off, which she did. It seemed to me at the time that the little boy was restless and had perhaps kicked the sidewall or some part of the aircraft that was affecting the electrical system. The lights dimmed momentarily again once or twice more, but again, all instruments showed nothing amiss.

Shortly after being handed off to Oklahoma City Approach, and about thirty minutes from our destination, the adult informed me she smelled something burning and that "it's getting hot back here."

I had all the fresh air vents fully open that warm July evening, which was blowing quite a bit of cool air towards the rear of the cabin and hadn't noticed any unusual smells. But within seconds of her announcement, I could smell a burning odor as well. I immediately declared an emergency with Oklahoma City Approach Control, stating that I had fumes in the cockpit and began reducing the electrical load by turning off non-essential electrical equipment, navigation radios and the number two Comm radio. The controller responded with a vector to the nearest airport at Purcell, OK, directly ahead, but 8 miles away. I turned to the heading and began a descent while the controller asked for the number of souls and fuel on board. He was unsure whether the airport was lighted or not and I asked for the CTAF frequency. I already had my sectional chart open to our position but had to turn on a flashlight to read the airport data for Purcell. I got the frequency from the chart and quickly dialed it into the standby side of the Comm radio, switched it to "Active" and quickly keyed the mic five times to activate the lighting, but could not find the airport in the dark. Returning to the Approach frequency I asked if there were any other airports available with lighting, but the only two choices were even further away. I later discovered that the airport lighting was not pilot controllable and was limited to low intensity.

Barely two minutes after her initial comment, I heard her say, "I can see light!" I glanced over my shoulder and noticed that she had unbuckled her seatbelt and had moved towards the center of the rear bench seat. I didn't notice any light at first, thinking that perhaps she was seeing glare from lights on the ground or our own strobes. But, she repeated the statement, with more intensity. When I looked again, I could see what appeared to be a small, orange dot, centered on the lower right-rear seat cushion. As I watched, it grew rapidly as flames burned through the leather seat material.

I informed the controller that we had an onboard fire and he responded with new bearing and range information to the airport. I searched vainly for the airport that was now only five miles ahead. With open flames in the cabin, I knew I had to get the airplane on the ground without delay.

I glanced at the Interstate highway barely two miles off our right wing. I could see heavy traffic moving both north and south along the heavily traveled road connecting Oklahoma City and Dallas. I thought to myself, "That's definitely not my first choice for a landing spot. Even if we land safely, we'll probably get clobbered from behind by an eighteen wheeler."

My rear seat passenger told me she had a cup of water and wondered if she should pour it on the fire. Realizing it was probably an electrical fire, I knew it wasn't the best idea but we were also running out of options, so I told her to go ahead. The flames diminished for a moment, but were soon burning brightly again.

I reduced power further as I turned to head towards the highway, just as the controller made the same suggestion. Unable to locate the airport at Purcell, the interstate was my best chance of getting safely on the ground, heavy traffic or not. My main concern was avoiding any

overpasses, since by this time I had turned off all electrical equipment except my number 1 Nav Comm. I advised the controller I intended to land on the northbound lanes. This put me into the wind, going with the flow of traffic. As I turned to line up with the highway, I brought in the first notch of flaps. I knew I was probably above the maximum flap extension speed, but honestly wasn't worried about it the time. I made a final call to the controller that I was completely lights out as I turned the remainder of the electrical equipment off. He informed me that emergency services had been notified and wished me luck. As I continued the descent, a highway overpass loomed out of the darkness. The interstate was easy to find with all the headlights from cars and trucks, even though there were no streetlights along this stretch of road. With excess airspeed I reduced my rate of descent to pass over the bridge and then brought in full flaps as I reduced the power to idle. I touched down on the centerline of the northbound lanes at a higher than normal airspeed and applied maximum braking. As the airplane slowed, I steered to the right to keep any vehicles from ramming us from behind. Miraculously, we had landed between traffic and managed to avoid hitting or being hit by any other vehicles!

With the airplane at a complete stop off the roadway, I pulled the mixture to idle cutoff. As the propeller spun to a stop, the cabin immediately filled with dense, choking smoke. My right seat passenger was having difficulty opening the door, so I reached across her and after fumbling with the latches myself, got the door open. I don't remember the teen exiting since by now, my rear seat passenger was frantically trying to free her son from the seatbelt and get him from the burning airplane. I reached over my seatback to try to assist her but am not sure if I did anything to help. I don't recall them exiting the aircraft, but suddenly realized I was alone in the plane. That's when I decided

it was time for me to get out too. I pulled my headset off, unbuckled my seatbelt and pretty much dove for the door, rolling off the leading edge of the wing. Once on the ground, I realized I still had my kneeboard strapped to my leg. I quickly accounted for all my passengers as two men approached to render assistance. As I gathered my bearings I realized that several trucks had pulled over in front of the now furiously burning aircraft. One of the men lent me a cell phone and I called the only number I could think of: 1-800-WX-BRIEF to let the briefer know of our emergency landing and that all aboard were safely accounted for. He hesitated and then asked if I wanted to close my flight plan. Even at the time, it was funny and I laughed and replied that he should close it for me.

Emergency vehicles arrived within two minutes of our landing and while the aircraft cabin was completely consumed by fire, our only injuries were some smoke inhalation and a few scrapes.

In dealing with an emergency of this type, I have to give credit to the flight instructors who trained me. While it's impossible to simulate the reality of having a cabin fire, I was taught to fly the airplane first. The rear seat passenger kept me pretty well advised of the conditions not two feet behind me, but I was not fully aware of all that was going on, since I was concentrating on flying the airplane.

On cross-country flights, I either file IFR, regardless of the weather, or at the least, ask for VFR flight following. Not only does this aid in traffic lookout, but the controller is a valuable person to have along. When I needed help, it was only a mic click away and the controller not only helped with suggestions on possible landing sites, he got the emergency equipment rolling in our direction. Talking with him on the phone afterwards, I learned that the point where the airplane rolled to a stop was only two miles from the Purcell airport, but I honestly believe

that we would have run out of time if I hadn't decided to land on the interstate.

Keep a fire extinguisher in a place on the airplane where you can reach it in an emergency. This aircraft did not have one, and it might have made a big difference.

I also have to credit the instructors of various military and civilian survival courses I have attended over the years. They taught the basics of emergency egress and most importantly the "will to survive." Without that, the outcome might not have been so happy. There are some good courses available to civilian pilots – try to attend at least one.

Know your aircraft systems and emergency procedures. I had to improvise in this emergency, but a thorough understanding of your aircraft is vitally important. This means flying not to maintain minimum currency, but flying for proficiency. If you're only doing 3 takeoffs and landings every 90 days, challenge yourself. Find a good CFI and go practice some of the maneuvers and procedures that we don't normally do on cross-countries from Point A to Point B.

And the most important thing—Fly the Airplane!!

Col Bob Castle, OKWG

Summary of CAPFs 78 Received at NHQ CAP for March 2007

Aircraft, C172, bird hit leading edge of left wing; caused damage and wrinkled skin.

Aircraft, C172, high flare on landing; rear tie down ring scraped.

Aircraft, C182, preflight inspection revealed underside of fiberglass wing tip showed signs of being scraped on the ground at high speed.

Aircraft, C172, parked aircraft found tail down, sitting nose high with severe ice encasing the whole aircraft; elevator dented.

Aircraft, C182, preflight inspection

showed slight bend on each elevator on the corner closet to the rudder.

Aircraft, C182, aircrew noted damage to each of the three prop blades after aircraft returned for maintenance.

Vehicle, driver backed vehicle into tree limb in the dark and with no spotter.

Bodily Injury, cadet slipped on ice and broke leg.

Bodily Injury, cadet walked into a hole with a pipe sticking out of the ground; 15 stitches received.

Bodily Injury, cadet assembling model received glue in eye.

Is Nothing Sacred?

In the April issue of the *Sentinel* I shared a safety story circulating in the insurance industry about hand sanitizers. Although I didn't mention any product names, alert CAP members contacted me that the story may not be true or as factual as believed. I contacted the source in the insurance industry and they responded that our members are correct. Someone may have been upset at this product and

may be trying to hurt its sales. However, all agreed that when using any product containing alcohol, be careful when near an open flame. We will work harder with our sources on the validity of safety stories and thank the members for their involvement and contributions to the *Sentinel*. This is your safety newsletter and your comments and contributions are important to us. Maj L. Mattiello, CAP



SAFETYGRAM

Mar 07

Intercepted?

In the post 9/11 world of general aviation, there are many new rules in place to increase the security of the skies over the mighty U.S. of A.

The one we as pilots must worry about the most is probably those pesky pop-up TFRs. They can happen with very little notice and the consequences of flying into one usually involve a visit from a military aircraft of sorts even before you get out of the area. (Of course if you file & fly IFR this should not become an issue.)

With the preflight planning the aero club world requires, there is probably a very small chance any aero club pilot would be involved in such a situation and I hope this never happens to any of you, but there is a chance that someone, somewhere may get intercepted. A review of what to do if intercepted is probably a good idea before getting intercepted as apposed to during the intercept.

You have probably heard the general aviation joke, 'what do you do if an F-16 pulls up onto your wing? ... "Slow down." While that may be funny, remember, it is not the airplane you are watching during the intercept that is your threat; it is the armed one behind you that you don't see, who is waiting for your response, that you should worry about. I am not sure how patient interceptor pilots are. So, on the serious side, what should you do if you are intercepted? The following is a review of in-flight intercept procedures.

1. Follow instructions given by the intercepting aircraft. (See chart below.)
2. Notify ATC, if possible. If able use ATC

as your radio relay.

3. If unable, attempt to communicate with ATC on 121.5 MHz, giving the identity of your aircraft, its position, and the nature of the flight.

4. If equipped with a transponder, squawk 7700, unless instructed otherwise by ATC. If any instructions received by radio from any source conflict with those given by the intercepting aircraft by visual or radio signals, request clarification while continuing to **comply with the instructions given by the intercepting aircraft.**

Hopefully you will never have to experience the sudden appearance of a military aircraft up close and personal. Good preflight planning combined with good situational awareness in flight will absolutely minimize the possibility of ever being intercepted.

That said, it would be a very good idea to know what to expect and how to respond. The procedures can be followed with or without radio contact, but use the radio if you can. Many situations can be explained a whole lot better on the radio than with signals.

The expanded descriptions of the intercept procedures are located in Chapter 5 of the Aeronautical Information Manual (AIM). You may also get a checklist sized card from the AOPA safety foundation (<http://www.aopa.org/asf/publications/>) to carry with you in-flight for quick reference should you need it. Use all available information to ensure a solid understanding of intercept procedures. It will help you.....

FLY SAFE!

<http://www.afsv.af.mil/Aero/Newsletters.htm>

This article appeared in the Apr 07 Illinois Wing *Safety Pins*. The entire *Safety Pins* may be viewed at <http://ilcap.org/safety/Safety.htm>.

On-line CAPF 78 and CAPF 79

The first version of the on-line mishap reporting system is active and running. For those who need it, there is an Interim Change Letter, *On-line Safety Mishap Reporting and Investigation Procedures*, at www.cap.gov/pubs on how to use the system. Also, there is an on-line tutorial available at eServices with the safety forms. We will be publishing a new CAPR 62-2, *Mishap Reporting and Investigation*, in the near future to address these new electronic forms and several other issues. We are going to simplify a lot of the issues

addressed by our safety officers.

If you are having an event, print the worksheet found on the 78/79 link from eServices and use it for your data. The worksheet mirrors the current form and is used to help gather information prior to sitting down and accomplishing the form on-line.

Please remember that the dollar cost is important on the Form 79. We have several investigations still open pending the cost of the mishap.

Col John Tilton, CAP/SE